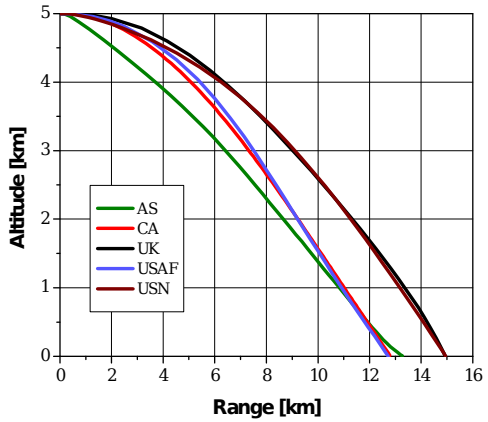
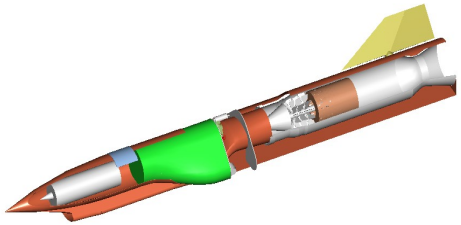
Performance Modelling of Future Missile Propulsion Systems

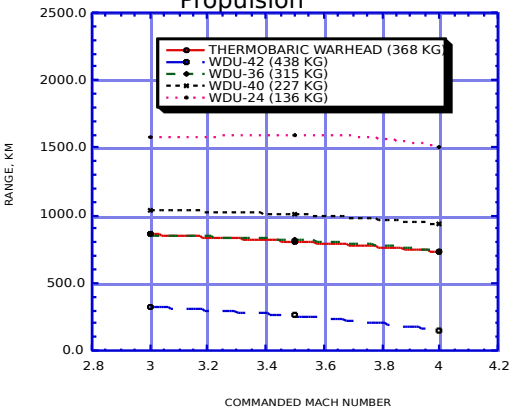
WPN Group/TP-4 Propulsion and Energetic Materials/KTA 4-25



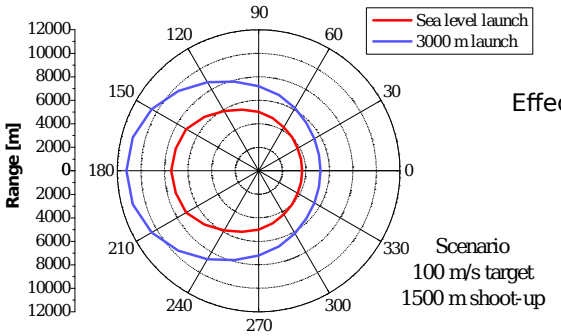
Trajectories for an air-to-surface solid rocket missile



Tribody Airframe with Liquid-Fuelled Ramjet Propulsion



Effect of payload mass & commanded cruise Mach No. on range



Effect of launch altitude on coverage envelope for a shoulder-launched Surface-to-Air Missile

Objectives:

Develop understanding of propulsion related design trade-offs and evaluate propulsion methodologies for future missile systems.

Payoff:

Significant improvements and greatly increased confidence in performance prediction methodologies for future missile propulsion systems.

Participants:

DSTO DRDC DSTL AFRL NAWC APL

Future Activities:

Focus Area: Propulsion for Stand-off Weapons

KTA 4-30: Propulsion Design Optimisation Tool

http://www.dtic.mil/